

REMARKS

Claims 2-8 and 10 are pending. Claim 2 has been rewritten in independent form and Claims 9 and 10 have been added.

Claims 1-8 are rejected under 35 U.S.C. § 102(b) as being anticipated by Knopfel, No. 5,147,200. The claims are unpatentable if the subject matter of the claims in this application are literally readable on the disclosure of the '200 patent. Claim 2 has been rewritten in independent form which is directed to the improvement in the efficiency of the combustion process in a lean premixed burner. A fuel-air mixture is supplied to a combustion zone in which combustion gas is supplied from the burner. The fuel-air mixture is heated by the combustion gas before ignition of the fuel mixture in the burner.

A preferred embodiment of the process of this invention is described with reference to Fig. 4 and paragraph [0026]. Combustion air flows (141) substantially tangentially into the interior 122 of the swirl producer 100. By dispensing with the mechanical flame holders, no components are made of metal that may lead to failure due to overheating. Applicant's invention produces effective combustion without damage to mechanical components.

Under 35 U.S.C. §102(b), a claim is anticipated only when all of the elements of the claim are found in a single cited reference. Claim 2 is distinguished from the '200 patent by the fact that in the process of the '200 patent combustion gas from the combustion chamber is mixed with fresh air and the resulting gas/fresh air mixture is mixed with the fuel. In Applicant's process, the combustion gas is mixed with a prior formed fuel-air mixture. Referring to Fig. 1 of the '200 patent, combustion gases are drawn into the pipe 7 where they are mixed with air introduced at the blower 5. The

'200 patent does not correspond literally to Claim 2 of this application because Claim 2 states that the combustion gas is mixed with a prior formed fuel-air mixture and then heated by supplying the combustion gas. Since the '200 patent does not disclose literally each element of Claim 2, Claim 2 is patentable over the cited reference. Claim 3 is dependent from Claim 2 and defines the amount of combustion gas in a mass fraction in the range of between 5 and 60%, but the '200 patent discloses a mass fraction of 50% to 80% fresh air. Accordingly, Claim 3 is allowable.

Claim 4 is dependent from Claim 2. For the same reasons, Claims 4-7 are not anticipated by the '200 patent. Accordingly these claims are allowable.

Claim 8 is rejected under 35 U.S.C. § 103(a) on the ground that the Examiner has taken official notice that the claimed method was known to be used in gas turbine power plant. Applicants object to the citation of "Official Notice" as the basis for rejecting Claim 8. The Examiner has offered no references to prior art that would indicate that there is a basis for citing Official Notice. The two lines of description provided by the Examiner are simply insufficient to enable Applicants to respond. The Applicant should be presented with an explicit basis on which the Examiner regards the matter as subject to Official Notice to enable Applicants to challenge the assertion. *In re Chevenard*, 139 F2d at 713, 60 U.S.P.Q. at 241.

Applicants submit that the next Official Action should not be made final, since there appears to be substantial factual issues regarding the citations. A favorable action is respectfully requested.

Respectfully submitted,

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